

We Claim As Our Invention

~~Patent claims~~

1. A method for receiving messages in which a spread-spectrum signal using a first spreading code is correlated, for the purpose of detecting the messages, with a second spreading code which is shorter than the first spreading code.
2. The method as claimed in claim 1, in which the shortened second spreading code is a code segment of the first spreading code.
3. The method as claimed in one of the preceding claims, in which the second spreading code is selected to be as short as possible but just long enough to enable messages to be received with sufficient quality or reliability.
4. The method as claimed in claim 3, in which the quality of the received messages is continuously assessed and in which the length of the second spreading code used is continuously adapted to the instantaneous quality of reception in such a manner that an adequate quality of reception is achieved.
5. The method as claimed in one of claims 3 or 4, in which the quality of reception is determined with the aid of redundant codes which were used for the channel coding of the messages.
6. The method as claimed in one of claims 3, 4 or 5, in which the quality of reception is improved with the aid of error correction codes which were used for the channel coding of the messages.
7. The method as claimed in one of the preceding claims, in which individual facilities of a receiving unit such as, for example, analog/digital converters or correlators are intermittently turned off or are operated at a lower clock frequency because a second spreading code which is shorter than the first spreading code is used for the correlation.

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8. The method as claimed in claim 7, in which the intermittent turn-off of individual facilities of a receiving unit is controlled by a control device provided for this purpose, in such a manner that the power consumption of the receiving unit is as low as possible with a predetermined quality of reception.

9. The method as claimed in claim 8, in which shortened spreading codes are selected for two successive symbols of a message to be detected, in such a manner that individual facilities of a receiving unit can be turned off over coherent periods of time which are as long as possible.

10. The method as claimed in one of the preceding claims, in which the second or a previous spreading code is extended to form a third or further spreading code which is also shorter than the first spreading code if the quality of reception is not adequate when the second or previous spreading code is used.

11. A method for transmitting messages to a multiplicity of receivers in which

a) the spectrum of message signals for individual receivers is spread by means of first spreading codes which are individually different for each receiver,

b) the spectrum of message signals which are intended for a group of receivers is spread by means of a first spreading code which is common to all receivers of this group, and in which

c) the individually different first spreading codes are selected in such a manner that the second spreading codes belonging to these individually different first spreading codes have as low as possible or ideally a vanishing correlation with a spreading code which is used for this group of receivers.

12. The method for transmitting messages to a plurality of receivers in which a spreading code which has an essentially

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non-vanishing cross correlation with the spreading code of a paging channel, is not used or is used only if no other spreading code is available.

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